DOCUMENT RESUME

ED 141 694 CG 011 520

AUTHOR Nace, Edgar P.; And Others
TITLE A Follow-Up Study of Veterans Two Years After Vietnam.
SPONS AGENCY Army Medical Research and Development Command, Washington, D.C.
PUB DATE 7 Sep 76
CONTRACT DAMD-1774-C-4015
NOTE 18p.; Paper presented at the Annual Meeting of the American Psychological Association (84th, Washington, D.C., September 3-7, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Alcoholism; Behavior Change; *Drug Abuse; Drug Addiction; Followup Studies; *Health Services; *Military Personnel; Research Projects; Socially Deviant Behavior; *Unemployment; *Veterans

ABSTRACT

This follow-up study of 202 Vietnam veterans from the Philadelphia Metropolitan area focuses on: (1) the current level of alcohol use; (2) depressive symptomatology as measured by a standardized and validated instrument; and (3) the relationship between preservice variables and addiction status in Vietnam to postservice adjustment. Data pertaining to Vietnam veteran unemployment and failure to seek health care as they relate to the addiction and depression are also examined. (VG)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED141694

A FOLLOW-UP STUDY OF VETERANS TWO YEARS AFTER VIETNAM

Edgar F. Nace, M.D.
Director, Alcoholism Treatment Program
Institute of Pennsylvania Hospital
Assistant Professor Clinical Psychiatry
University of Pennsylvania
Philadelphia, Pennsylvania

Charles P. O'Brien, M.D., Ph.D.
Associate Professor of Psychiatry
Director, Drug Treatment and Research Service
Veterans Administration Hospital
Philadelphia, Pennsylvania

James Mintz, Ph.D.
Department of Psychiatry
University of Pennsylvania
Philadelphia, Pennsylvania

Norman Ream, M.D.
Division of Neuropsychiatry
Walter Reed Army Institute of Research
Washington, D.C.

Andrew L. Meyers, M.Ed.
Research Specialist
Department of Psychiatry
University of Pennsylvania
Philadelphia, Pennsylvania

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY
Edgar F. Nace
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

Paper presented at the 84th Annual Convention of
the American Psychological Association.
Washington, D.C.
7 September, 1976

This research was supported by U.S. Army Medical Research and Development Command. Washington, D.C. Contract No. DAMD 1774 C-4015

CG011520

INTRODUCTION

Injury, mutilation, amputation, and chronic disease are the legacy of Vietnam for thousands of United States veterans. 56,261 men died between January 1, 1961 and March 31, 1973. Amidst this holocaust one health issue emerged, alarming political leaders and citizenery alike: heroin addiction. The latter, unlike death, was not likely to be confined to the battlefield. Nor, as with the injured, was the public likely to be sheltered from its consequences. The heroin epidemic occuring roughly between 1970 and 1972 among U. S. personnel in Vietnam was expected to seed a similar epidemic of addiction and, with it, increasing crime and social disorganization in the United States. It is ironic that a similar epidemic of heroin and other drug use was occuring within the United States during roughly the same time period. The increasing use of heroin within the United States had been documented by Dupont and Green in 1973. Recently, it has been documented that the peak period of use of all illicit drugs in the United States occurred between 1963 and 1973 (O'Donnell, et al, 1976).

With regard to the returning serviceman and his heroin habit, Robins, et al, (1974) in an extensive study found that the fear of continuing use of narcotics was largely unfounded. In the Robins' study, former U.S. Army personnel were interviewed between 8 to 12 months following their return from Vietnam. Only about two percent indicated that they were currently using narcotics at time of their interview. The present study addressed the same issues as the Robins' study, but contacted a sample of former U.S. Army personnel at a later period of time, an average of 28 months post-discharge from the service. As with the Robins' sample, these veterans were in Vietnam during the peak periods of heroin use. The present study focused entirely on veterans from the Philadelphia Metropolitan area in contrast to the national distribution of Robins. Particular emphasis has been placed, in this study, on current alcohol use, depressive symptomatology as measured by a standardized and validated instrument (Beck Depression Inventory, BDI), and the relationship of both pre-service variables and addiction status in Vietnam to post-service adjustment.

Sample

The subjects for this follow-up study were obtained from two sources:

(1) The screening of all available admissions face sheets of clinical records (N=10, 650) of soldiers admitted to either of the two drug treatment centers in Vietnam during the period of operation (June, 1971 - December, 1972); and

(2) The screening of medical records (N=14, 780) of soldiers admitted to one of four United States Army hospitals in Vietnam in 1971 and 1972. From the above screenings, all face sheets which listed an emergency addressee (usually father, mother or wife) as residing in the City of Philadelphia or within a 55 mile radius in Pennsylvania or New Jersey were pooled and filed.

A sample of 312 veterans was potentially available for follow-up evaluation; 188 of which had been detected by urine screening techniques as drug positive while in Vietnam, and a medical control group of 124 who had not been detected as drug users while serving in Vietnam. This study presents data on the 202 veterans interviewed. Of these 202 veterans, 125 had been detected as drug users and 77 were in the medical control group.

Method

Using the addresses provided by the clinical face sheets of the drug treatment centers or the medical records of the Army hospital, the veterans were contacted by either telephone, letter, or field visit. The nature and purpose of the follow-up study was explained and an appointment for an interview was scheduled. Each interview was conducted by one of two trained male interviewers who were skilled in interview techniques and highly capable of establishing rapport with the sample under study. The interview was semi-structured, lasted one and one-half hours, and assessed areas of current adjustment (employment, marital status, drug and alcohol use, etc.) as well as relevant past and current variables. Each veteran was paid $15.00 for his participation. At the close of the interview each veteran was asked to complete the BDI and to provide a urine sample for drug screening.

Of the 202 men interviewed one refused to complete the BDI and two refused to provide urine samples. The interviews, in the large majority of cases, were conducted at the veteran's place of residence, excepting a few interviews which were conducted at the Drug Dependence Treatment Center at the Philadelphia VA Hospital.

DRINKING PROBLEMS AMONG VIETNAM VETERANS

Of the 202 men interviewed, 16 percent could be classified as problem drinkers (i.e. having had at least three of eight possible alcohol-related problems in the period since discharge), and an additional 23% were considered symptomatic drinkers (one or two alcohol-related problems in the period since discharge). Thus 39% of the sample were drinking heavily enough to be experiencing alcohol-related problems.

In contrast to current alcohol usage, only 21% of the Ss had used heroin in the period since discharge, even though nearly 50% of the Ss had been addicted to heroin while in Vietnam.

The problem drinkers were significantly more likely to have had a parent with a history of alcoholism. In addition, they were significantly more likely to have received treatment for a drug or alcohol problem in the past and to have sought help for emotional problems. Currently, the problem drinkers were as likely to be employed, but not to have held a job as long. There are more likely to have current legal problems and had received a significantly greater number of Article 15's (non-judicial punishment) while in the Army. The problem drinkers rated their overall health as being lower than the rest of the sample and were significantly more depressed as measured by the Beck Depression Inventory.

The problem drinkers were significantly more likely to have first become intoxicated prior to age 15 and currently were drinking greater quantities of beer, wine, and liquor.

With regard to other drugs, the problem drinkers had begun using marijuana, amphetamines, and barbiturates earlier than other Ss and currently were using marijuana and amphetamines significantly more frequently. There was no current difference in heroin use although those with current drinking problems reported a longer period of heroin addiction in Vietnam and significantly more often had positive urine screen results while in Vietnam.

DEPRESSION IN VETERANS TWO YEARS AFTER VIETNAM

Depression was assessed by the Beck Depression Inventory (BDI) and by the veteran's subjective report. Data from the first 150 veterans seen during follow-up revealed that thirty-five percent scored within the clinically depressed range on the BDI. The majority of the depressed veterans had scores within the moderate and severe ranges of depression. The findings reveal an extensive, serious, and largely untreated problem which has not been previously reported.

The depressed veteran is significantly more likely to have been in the past and/or currently a "heavy" illegal drug user. Depression was significantly

associated with narcotic, barbiturate, and/or amphetamine use in Vietnam, and with narcotic use since returning from Vietnam. In addition, those veterans who are depressed have a significantly higher rate of unemployment, and a significantly greater incidence of marital problems than do their non-depressed peers. The depressed group of veterans is more likely to have come from a broken home, and to have manifested maladaptive behaviors antedating the present assessment. Lower educational attainment, greater alcohol consumption prior to entering the service, earlier marriages, military disciplinary problems and military and post-military civilian drug use were all more common among the group of depressed veterans.

Thus, a subsample of returning Vietnam veterans seems to be at risk for the development of a depressive syndrome. This syndrome was present at least two years post-discharge and can hardly be considered a "re-entry" phenomenon. The current depression seemed to be a further example of non-effective responses to developmental tasks, rather than an acute reaction to environmental events. The rate of those seeking treatment is very low, and the depressed veteran seems to have remained essentially outside available mental health systems.

NARCOTIC USE SINCE DISCHARGE FROM THE ARMY

The central concern that addicted soldiers would return to the United States and pursue a "career" of narcotics addiction has not been substantiated by our data. Of those who had been addicted in Vietnam, 38% have used a narcotic and 24% of Vietnam addicts report a period of addiction within the 28 month period post-discharge. The percentage actually addicted at some time in the three months prior to interview was considerably lower (4%). For those who experimented with, but had not become addicted to narcotics in Vietnam, 11% tried a narcotic since discharge. None of the group who abstained from narcotic use in Vietnam have used a narcotic post-discharge.

Our data can be compared with Robins' data by comparing the results from her drug-positive sample with the results from our Vietnam narcotic using sample (addicts and users combined). Very close agreement is obtained. Robins reported that 33% of the drug positive sample continued narcotic use and 19% became addicted after discharge. In our study 28% continued to use narcotics with 18% having had a period of addiction since discharge. As 63% of our sample who had used a narcotic in Vietnam were addicted in Vietnam, the eighteen percent post-discharge rate shows a marked decline since return to the States.

Of particular interest is the relationship between narcotic use in Vietnam and use since return from the service. Our data provides some support for the contention that narcotic use in Vietnam relates to current narcotic use. Narcotic use since discharge correlated .43 with the set of pre-service variables and .40 with addiction status (addict, user, or non-user) in Vietnam. From this one could

conclude that pre-service variables contributed about as much to current narcotic use as did drug use in Vietnam. If the effect of pre-service variables is separated, the Vietnam drug grouping only correlated .28 with current narcotic use. The correlation between pre-service narcotic use (one of the 12 variables entering into the multiple correlation of pre-service variables mentioned above) and current narcotic use is .21.

To conclude, narcotic use post-discharge is associated with both Vietnam and pre-service experience.

CRIMINAL BEHAVIOR

As with narcotic use, criminal behavior since discharge is associated strongly with the pre-service experiences. As shown in Table 10 there are a significantly greater number of Vietnam addicted group with current legal problems and the same holds true in regard to ever having been in jail (Table 4). The multiple correlation of pre-Vietnam variables with post-service criminal variables was .40 and the correlation between Vietnam addiction status and post-service criminal behavior was .30. Both correlations are statistically significant, but with pre-service factors separated, addiction status in Vietnam yields a non-significant correlation of .14.

The data are clear in reference to the central concerns of the Vietnam heroin epidemic: continuing narcotic addiction and criminal behavior on the part of these men is considerably less than had been anticipated, and in the case of criminal behavior, no greater than what might have been predicted from their behavior prior to entering the service.

These findings, of course, should not suggest that the Vietnam military experience of these men has not had a bearing on these behaviors as well as other variables yet to be discussed. One could argue that if the Vietnam experience had not occurred, other moderating influences might have "neutralized" or "reversed" the pre-service experiences. The converse is true also. Alternative experiences to Vietnam or military service may have aided and abetted any of the pre-service indices of poor adjustment.

MARIJUANA AND OTHER DRUG USE

With regard to marijuana and "other drug use", pre-service variables account for nearly an equal amount of variance as Vietnam addiction status. Both post-discharge marijuana use and "other drug" use correlate significantly with Vietnam addiction status after pre-service variables are separated. Although the age of onset of marijuana or "other drug" use does not differ between the Vietnam addicts, users, and non-users: the addicts and users were significantly more likely to have initiated use prior to entering the service. The frequency of use prior to service did not differ between the addicts and users, but as reflected

In Table 6, when the non-users are taken into account, the differences in frequency of pre-service use between the three groups is significant.

During military service, the three groups differ significantly in the frequency of use of marijuana whether before, during or after the Vietnam tour. These differences are significant due to the low rate of use by the non-user group. Exceptions are a significantly greater ($p < .05$) frequency of use of marijuana in service, but prior to Vietnam on the part of the addicts compared to the users. A similar difference occurs with barbiturate use ($p < .01$) while in Vietnam (Table 8).

Comparing Vietnam use with use since discharge (Table 12) marijuana and barbiturate use show a declining trend in all three groups, whereas the percentage using amphetamine or hallucinogens increased in the three groups. Statistical differences are again significant because of the low rate of usage by the non-using group. The addict group, however, has a significantly greater percentage of individuals than the user group who have used speed ($p < .05$) and "mainlined" speed ($p < .01$). Similarly, the addicts have used barbiturates significantly more frequently ($p < .01$) since discharge than have the user group.

Therefore, the addict group has not only continued to use significantly more narcotics than the other two groups post-discharge (although considerably less than when in Vietnam), but has also used more extensively marijuana and "other drugs". The concomitant use of a variety of drugs in association with regular use of heroin has been reported in another sample (Nace, et al, 1975).

RELATIONSHIP BETWEEN PRE-SERVICE ADJUSTMENT, ADDICTION STATUS IN VIETNAM AND POST-SERVICE ADJUSTMENT:

One of the major questions this study attempted to answer was the relative importance of pre-service variables and in-service variables on post-service adjustment. That is, are pre-service behaviors and experiences of equal or greater importance as contributing factors to current adjustment problems than the experience of being addicted to narcotics in Vietnam? In order to answer this question a series of multiple correlations were computed to determine the relationship between the pre-service variables, addiction status in Vietnam, and current adjustment.

The pre-service variables include twelve aspects of pre-service adjustment: criminal behavior, employment history, amount of education, reason for leaving school, family stability, parental relationships, socioeconomic status, hospitalizations, alcohol, marijuana, narcotic and other drug use. Each subject was rated on each variable* and this rating was used in the correlation with post-service adjustment.

*The rating system for each variable in both the pre-service and current adjustment scoring was one to three with three points given for the best adjustment on that variable. Some variables were derived and scored from several questions in the

An attempt was made to group these variables into a smaller number of factors, but they were heterogenous. Therefore, all pre-service variables were examined individually.

The in-service variables examined included only the drug use groupings based on Vietnam narcotic use: addicts, users, and non-users.

The post-service variables include nine aspects of current adjustment. These include criminal behavior, alcohol, narcotic, marijuana, and other drug use as well as depression, physical health, employment/school status, and "heterosexual" adjustment. Each subject was rated on each post-service variable and a total current adjustment score derived. In addition, the current adjustment variables could be group into two factors, one including the criminal behavior and drug use variables and the other including the remaining current adjustment variables. These are referred to as the "drug use factor" and the "social adjustment factor".

Multiple correlations were computed relating all pre-service variables to each current adjustment variable, to the drug use and social adjustment factors, and to the total current adjustment score. These correlations are seen in Table 14.** The highest correlation found was the multiple correlation between the Vietnam drug group and the current drug use factor.

The multiple correlation of the pre-service variables with the drug use factor and each of the individual variables that make up the "drug use factor" are significant.

The pre-service variables correlate significantly (.47) with the social adjustment factor but individually with only two of the four components; .44 with depression and .41 with physical health. The overall multiple correlation between pre-service adjustment and current adjustment is .58.

Correlations were also computed between the Vietnam drug-use group and current adjustment. For each current adjustment variable, the Vietnam drug group correlated significantly.

In order to determine the effect, or contribution as it were, of both preservice variables and Vietnam drug groupings, a partial correlation was computed between Vietnam drug group and current adjustment, separating the contribution of the pre-service variables to the overall correlation. This technique produced several interesting facts which are described below. When the pre-service variables were

**A complete breakdown of the individual correlations used in computing the multiple correlations in available on request.

separated, the Vietnam drug group continued to correlate significantly with current overall adjustment, but at a much reduced level. The drug groupings also continued to correlate significantly, but, again, at a much reduced level, with both the "drug use" and "social adjustment" factors. On the other hand, current criminal behavior did not significantly correlate with Vietnam drug group with the pre-service variables were separated. Also, physical health and employment/school status do not result in a significant partial correlation with Vietnam drug group. Therefore, the latter variables are more strongly associated with pre-service adjustment factors than with narcotic use status in Vietnam.

Finally, Vietnam drug grouping had a significant partial correlation with current narcotic use, as well as alcohol, marijuana and other non-narcotic drugs. The same was true for ratings of depression and heterosexual adjustment.

SUMMARY

A follow-up study of 202 Vietnam Veterans from the Philadelphia Metropolitan area who served in Vietnam between June, 1971 and November, 1972 has been completed. The veterans were interviewed at an average of 28 months post-discharge from the Army, and were divided into three groups according to addiction status in Vietnam: heroin addicts in Vietnam, heroin users (but not addicted in Vietnam), and non-users of heroin.

During the two year period following discharge 38% of the Vietnam heroin addicted group had used heroin and 24% had experienced a period of addiction. Eleven percent of the group which had only used heroin while in Vietnam used a narcotic in the two year period since discharge and 6% of this group had experienced a period of addiction. None of the non-using group had used any narcotics following discharge from the service.

An evaluation of current adjustment was obtained, directed towards such variables as employment, marital status, educational accomplishments, criminal activity, emotional status, and drug and alcohol use.

Alcohol related problems in this group of Vietnam veterans were extensive. Thirty-nine percent of the total sample have experienced at least one alcohol related problem since discharge and 16% could be categorized as "alcoholic."

In addition, a high rate of depression as measured by the Beck Depression Inventory was found with 33% of the subjects falling within a clinical range of depression. The current rate of unemployment of this group is considered to be an important factor with regard to their state of depression.

Of particular interest is the finding that post-discharge criminality and narcotic use are accounted for by pre-service experiences as well as by the use of narcotics in Vietnam. Other variables such as alcohol use, depression and marijuana use also bear a relation to pre-service variables and to addiction status while in Vietnam.

In spite of the high incidence of depression and alsohol use very few individuals have availed themselves of any health care delivery system.

BIBLIOGRAPHY

1. Archibold, H.C. and Tuddenham, R.D.: Persistent stress reaction after combat. Arch Gen. Psychiatry 12:475-81, 1965.
2. Baker, F.L.: Drug Abuse in the United States Army, Bull, N.Y., Acad. Med. Vol. 47 #6, June, 1971, pp 541-549.
3. Beck, A.T.: Depression: Clinical, experimental, and theoretical aspects. New York, Harper and Row Publishers, Inc., 1967.
4. Borus, J.F.: Incidence of maladjustment in Vietnam returnees. Arch Gen Psychiatry 30:554-557, April, 1974.
5. Brown, F.: Childhood bereavement and subsequent psychiatric disorder. Br. J. Psychiatry 112:1035-1041, 1966.
6. Cahalan D., Cisin I.H., Crossley, H.M.: American Drinking Practices. New Brunswick, N.J., Rutgers Center of Alcoholic STudies, 1969.
7. Dobbs, D. and Wilson, W.P.: Observation persistence of war neurosis. Dis. Nerv. System 21:686-91, 1960.
8. DuPont, R.L. and Greene, N.H.: The dynamics of a heroin addiction epidemic. Science 181:716-722, 1973.
9. Goodwin, D.W., Davis, D.H., Robins L.N.: Drinking amid abundant illicit drugs. Arch. Gen. Psychiatry, Vol 32, pp 230-233, 1975.
10. Hampton, P.E. and Vogel, D.B.: Personality characteristics of servicemen returned from Vietnam identified as heroin abusers. Am J Psychiatry 130(9): 1031-1032, September, 1973
11. Kovacs, Maria: Personal Communication, 1975.
12. Nace, E., Meyers, A., Rothberg, J.M., Malison, F.: Addicted and Non-Addicted Drug Users: A Comparison of Drug Usage Patterns. Archiv. Gen. Psych., Vol. 32, Jan. 1975, pp 77-80.

BIBLIOGRAPHY (con't)

13. O'Donnel, J.A. et al.: Young Men and Drugs - A Nationwide Survey. National Inst. on Drug Abuse. Research Monograph No. 5, Feb. 1976.

14. Oliver, J.M., Croghan, L.M., Katz, N.W.: Prevalence of depression in freshman and sophomores at four university as measured in a random sample by the Beck Depression Inventory. Unpublished manuscript. Dept. of Psychology, St. Louis University, 1975.

15. Robins, L.N.: The Vietnam drug user returns. Special Action Office Monograph, Series A, Number 2, May, 1974. U.S. Government Printing Office, Washington, D.C. 20402.

16. Strange, R.E. and Brown, D.E., Jr.: Home from the war: A study of psychiatric problems in Vietnam returnees. Am J Psychiatry 127 (4):130-134, October, 1970.

TABLE 15

SERVICE VARIABLES AND DEPRESSION STATUS

	Depressed (N=66)	Non-Depressed (=136)	p-level[a]
1) Average age at entry into the service	19.2 years	19.1 years	n.s.
2) Average age when discharged from service	22.0 years	21.7 years	n.s.
3) Average number of months in Vietnam	10.6 months	11.0 months	n.s.
4) Percent drafted	33	35	n.s.
5) Percent reporting general satisfaction with Vietnam service experience	64	76	n.s.
6) Percent serving in a combat unit	51.5	37.5	n.s.
7) Percent received Article 15 (non-judicial punishment)	74	51	$< .003$
8) Percent received court-martial	19	13	n.s.

[a] Based on t-tests for items 1 - 4, and on chi-square tests for items 5 - 8.

TABLE 16

SOCIAL VARIABLES AND DEPRESSION STATUS

	Depressed (N=66)	Non-depressed (N-136)	p-level[a]
1) Percent employed	.45	76	<.01
2) Current educational level (mean highest grade completed)	11.5 years	11.84	n.s.
3) Percent currently in school	15	18	n.s.
4) Marital status (percent): Married,	21	43	
separated/divorced,	21	8	<.002
single	58	49	
5) Percent with current legal problems: (probation, parole, court case pending).	30	17	<.05
6) Location: Percent living in city	58	52	n.s.
7) Ethnic background: Percent Black	50	34.6	
Percent Non-Black	48	65.4	<.06
8) Percent living with both parents until age 16	52	66	<.06

[a] Based on chi-square tests.

P-LEVELS OF DIFFERENCES BETWEEN THE DEPRESSED AND THE NON-DEPRESSED GROUPS

ON DRUG USE VARIABLES

	Pre-Service	RNV	Since Discharge	Last 3 Months
Frequency of Alcohol Consumption	.05	n.s.	n.s.	n.s.
Frequency of Drunkeness	n.s.	n.s.	n.s.	n.s.
Frequency of Marijuana Use	n.s.	n.s.	.01	.01
Frequency of Hallucinogenic Use	n.s.	n.s.	n.s.	n.s.
Frequency of Amphetamine Use	n.s.	.001	n.s.	n.s.
Frequency of Barbiturates Use	n.s.	.05	n.s.	n.s.
Frequency of Heroin Use	n.s.	.01	.001	.005

[a] Based on chi-square tests. All significant differences are in the direction of greater use by the depressed group.

"n.s." means a p-level $>.10$.

MULTIPLE CORRELATIONS BETWEEN CURRENT ADJUSTMENT VARIABLES, VIETNAM DRUG GROUPS AND PRE-SERVICE VARIABLES

	Vietnam Drug Group	Pre-Service Variables	Vietnam Drug Group With Pre-service Variables Separated
Overall Adjustment	.58*	.58*	.35*
Drug Use Factor	.60*	.59*	.36*
Criminal Behavior	.30*	.40*	.14
Alcohol Use	.42*	.48*	.26*
Narcotic Use	.40*	.43*	.28*
Marijuana Use	.55*	.46*	.38*
"Other Drug" Use	.45*	.46*	.28*
Social Adjustment Factor	.35*	.47*	.21*
Heterosexual Activity	.26*	.27	.20*
Depression	.30*	.44*	.22*
Physical Health	.22*	.41*	.10
Employment/School Status	.22*	.31	.15

* $p \leq .05$